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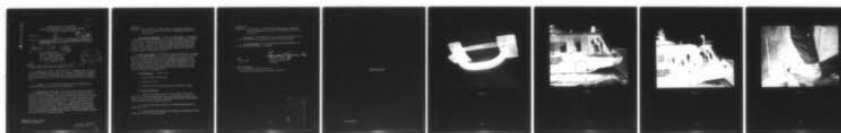
ARMY AVIATION TEST BOARD FCRT RUCKER ALA
PRODUCT IMPROVEMENT TEST, ADDITIONAL ROOF ACCESS STEP FOR UH-1D--ETC(U)
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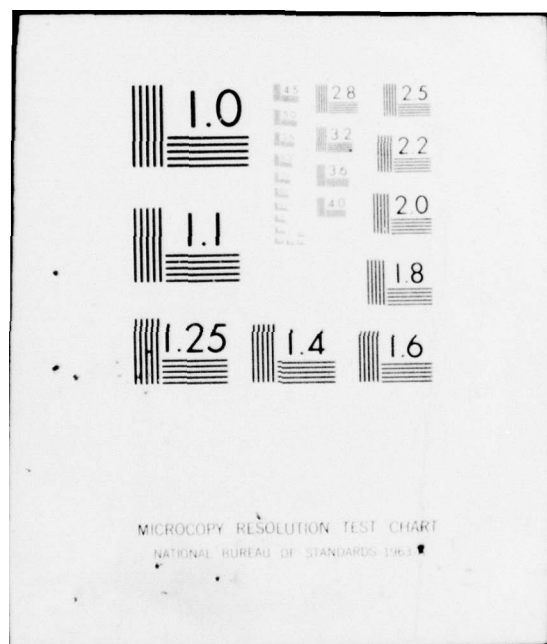
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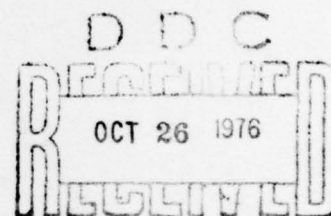
AD A031135

DEPARTMENT OF THE ARMY
UNITED STATES ARMY AVIATION TEST BOARD
Fort Rucker, Alabama 36360

STEBG-TD

SUBJECT: Letter Report, "Product Improvement Test, Additional
Roof Access Step for UH-1D/H," USATECOM Project No.
4-5-0151-21

TO: Commanding General
US Army Materiel Command
ATTN: AMCPM-IRFO-T
P.O. Box 209, Main Office
St. Louis, Missouri 63166



Letter rept. 128p.
16 USATECOM-4-5-0151-21

1. Reference. Letter, AMCPM-IRFO-T, Headquarters, US Army Materiel Command, 27 December 1967, subject: "Request for Project Directive on UH-1/AH-1G Equipment," with 1st Indorsement, AMSTEBG, Headquarters, US Army Test and Evaluation Command, 10 January 1968.

2. Purpose. To determine the suitability of the additional roof access step for use on the UH-1D/H Helicopters.

3. Background. Breaking of the hinges on the right crew door of the UH-1D/H has been a problem, and is believed to result from the location of the access steps. Since the first step is too high to be reached from the ground, personnel open the right crew door and use the cockpit floor as the first step and the door as a crutch. Personnel ascend and descend while the door remains open. Downwash from other aircraft and use of the door as a means for assistance can cause the door to flap and the hinge to break. To correct this problem, the manufacturer has submitted an Engineering Change Proposal for incorporation of an additional step below the existing steps. The USAAVNTBD received the step for test on 12 January 1968.

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4. Description of Materiel. The access step (figure 1, inclosure) is constructed of one-inch tubing (0.032 wall 4130 alloy steel: Mil Spec 7-6736 Type 1 Cond N) coated on the top side with non-skid material (MIL-W-5044). The tube is a half-oval shape, providing a step about 7 inches wide extending 3 1/2 inches from the side of the helicopter. Plates for attachment of the step are welded on each end of the tube. The step weighs 1 pound and 10 ounces.

5. Scope and Method. The US Army Aviation Test Board conducted the product improvement test of the UH-1D/H roof access step at Fort Rucker, Alabama, during the period 18 January - 5 February 1968. The step was installed, in accordance with the instructions provided, on the right-hand side of JUH-1H, S/N 66-1093, at Waterlines 16.81 - 22.00, Stations 74.30 - 84.50, and Buttline 46.07 (figure 2). Crewmembers and maintenance personnel used the step while performing routine maintenance and inspections.

6. Test Objectives. To determine:

- a. Ease of ascent and descent.
- b. Adequacy of size.
- c. Any interference with loading and unloading of troops.

7. Summary of Results.

- a. The steps could be ascended easily without opening the right door. When descending the steps, personnel had a natural tendency to begin with the right foot, resulting in an awkward body position when the lower step was reached (figure 3).
- b. The step was large enough for personnel wearing combat boots (figure 4).
- c. The step did not interfere with loading or unloading of troops when the aircraft was on the ground.

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8. Conclusion. The additional roof access step is suitable for use
on the UH-1D/H, but is located too far aft for ease of descent.

9. Recommendation. It is recommended that the additional step
be mounted further forward, if feasible.

1 Incl
Photographs

Louisa Williams, Col
DAVID M. KYLE
Colonel, Artillery
President

Copies furnished:
CG, USATECOM, ATTN: AMSTE-BG
Aberdeen Proving Ground, Maryland 21005 (2)

REVISIONS	
REV	DESCRIPTION
1	Initial Revision
2	Final Revision
3	Final Revision
DISTRIBUTION/AVAILABILITY CODE	
FORM 100-100-100-100	
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PHOTOGRAPHS

INCLOSURE



Figure 1



Figure 2



Figure 3



Figure 4